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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
WASHBURN, DOUGLAS N	
ART UNIT	**PAPER NUMBER**
2863	

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/817,169	BIENVENU ET AL.	
	Examiner	Art Unit	
	Douglas N. Washburn	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11,14,15,17-26,28,29,31-40 and 42* is/are rejected.

7)☒ Claim(s) *12,13,16,27,30 and 41* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 April 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *16 August 2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1 The information disclosure statement filed 2 April 2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Drawings

2 The drawings are objected to because drawing figure 5 depicts plural (two) communication elements 450, however only one element is annotated or identified. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoskinson et al. (US 6,497,153)(Hereafter referred to as Hoskinson).

Hoskinson teaches:

A measuring device (instrumented hitch pin 100; column 8, lines 8 and 9) for selectively and directly measuring the property (density; column 2, line 46) of the paving-related material (soil; column 2, line 33) in regard to claim 1;

A computer device (computer 20; column 6, line 3) capable of executing a software program (column 5, lines 41-47) product and communicating with the measuring device (data acquisition module; column 12, line 26), the computer device being configured to direct the measuring device to measure the property of the paving-related material according to a parameter determined by the software program product, and to receive data comprising the measured property of the paving-related material from the measuring device (column 5, lines 12-37) in regard to claim 1;

A communication element operably engaged between the measuring device and the computer device (load sensor lead; column 12, line 24) so as to allow communication therebetween, the communication element being configured to allow the computer device to be spaced apart from the measuring device (column 5, lines 60-65), thereby allowing the computer device to be prepared, to include the parameter and to manipulate the data, in spaced apart relation with respect to the measuring device in regard to claim 1;

A communication element comprises a wire element extending and connected between the computer device and the measuring device (load sensor lead; column 12, line 24) in regard to claim 2;

A wireless transceiver operably engaged with each of the computer device and the measuring device (data acquisition module; column 12, line 26), the wireless transceivers being configured to be capable of communication therebetween in regard to claim 8;

A locating device operably engaged with at least one of the measuring device and the computer device, the locating device being configured to determine a location of the at least one of the measuring device and the computer device (global positioning system 170; column 8, lines 66 and 67; figure 5) in regard to claim 9;

A central computing system spaced apart from the computer device and the measuring device and configured to be capable of communicating the data with the computer device (column 6, lines 51-53; figure 1) in regard to claim 10;

A central computing system is configured to communicate with the computer device so as to modify the software program product (column 6, lines 51-65; figure 1, elements 36a, 36b, 49a, 49b, 52 and 54) in regard to claim 11;

A measuring device is further configured to directly measure at least one of a density, a density-related parameter (spatial variability of force; column 9, lines 16-19), and a moisture content of at least one of a soil, an aggregate, and an asphalt paving mix in regard to claim 14;

A measuring device is selected from the group consisting of a nuclear density gauge, a nuclear moisture gauge, a seismic pavement analyzer, a stiffness gauge, a falling weight deflectometer, a ground penetrating radar device, a radio frequency device, an electromagnetic device (instrumented hitch pin 100; column 8, lines 8 and 9; figure 3 element 100), a microwave device, a surface roughness measuring device, a pavement temperature sensor, a pavement temperature measuring device, and combinations thereof in regard to claim 15;

Preparing a computer device to execute a software program product for directing a measuring device to directly measure the property of the paving-related material, according to a parameter determined by the software program product (column 6, lines 1-13), and to receive data comprising the measured property of the paving-related material from the measuring device (column 9, lines 5-9) in regard to claim 18;

Executing the software program product (column 5, lines 44-53) in regard to claim 18;

Communicating the executed software program product from the computer device to the measuring device via a communication element operably engaged therebetween (WAN; column 6, lines 60-63; figure 1, element 52), the communication element being configured to allow the computer device to be spaced apart from the measuring device such that the computer device can be prepared, in spaced apart relation with respect to the measuring device, to include the parameter and to manipulate the data in regard to claim 18;

A measured property of the paving-related material from the measuring device to the computer device via the communication element
(LAN; column 6, lines 60-63; figure 1, element 51) in regard to claim 19;

A communication element comprises a wire element, and the method further comprises removably engaging the wire element with at least one of the computer device and the measuring device such that the wire elements extends and is connected between the computer device and the measuring device (load sensor lead; column 12, line 24) in regard to claim 20;

A wireless transceiver operably engaged with each of the computer device and the measuring device, and the method further establishing communication between the wireless transceivers so as to allow the computer device to communicate with the measuring device (WAN; column 6, lines 60-63; figure 1, element 52) in regard to claim 24;

Determining a location of at least one of the measuring device and the computer device with a locating device operably engaged with at least one of the measuring device and the computer device (global positioning system 170; column 8, lines 66 and 67; figure 5) in regard to claim 25;

Communicating at least one of the data and a modification of the software program product between the computer device and a central computing system spaced apart from the computer device and the measuring device (column 5, lines 60-65) in regard to claim 26;

Preparing a computer device to execute a software program product for directing a measuring device to directly measure at least one of a density, a density related parameter (shear force; column 8, lines 5-7; figures 3 and 4), and a moisture content of at least one of a soil (column 9, lines 16-19), an aggregate, and an asphalt paving mix in regard to claim 28;

Preparing a computer device to execute a software program product for directing a measuring device comprising at least one of a nuclear density gauge, a nuclear moisture gauge, a seismic pavement analyzer, a stiffness gauge, a falling weight deflectometer, a ground penetrating radar device, a radio frequency device, an electromagnetic device (instrumented hitch pin 100; column 8, lines 8 and 9; figure 3 element 100), a microwave device, a surface roughness measuring device, a pavement temperature sensor, a pavement temperature measuring device, to directly measure the property of the paving-related material in regard to claim 29;

A computer device (computer 20; column 6, line 3) capable of executing a software program product (column 5, lines 41-47) and communicating with the measuring device, the computer device being configured to direct the measuring device to measure the property of the paving-related material according to a parameter determined by the software program product, and to receive data comprising the measured property of the paving-related material from the measuring device (column 5, lines 12-37) in regard to claim 32;

A communication element operably engaged between the measuring device and the computer device (load sensor lead; column 12, line 24) so as to allow communication therebetween, the communication element being configured to allow the computer device to be spaced apart from the measuring device (column 5, lines 60-65), thereby allowing the computer device to be prepared, to include the parameter and to manipulate the data, in spaced apart relation with respect to the measuring device in regard to claim 32;

A communication element comprises a wire element (load sensor lead; column 12, line 24) extending and connected between the computer device and the measuring device in regard to claim 33;

A communication element comprises a wireless transceiver (modem; column 7, lines 5-7; figure 1, element 54) operably engaged with each of the computer device and the measuring device, the wireless transceivers being configured to be capable of communication therebetween
in regard to claim 39;

And a locating device operably engaged with at least one of the measuring device and the computer device, the locating device being configured to determine a location of the at least one of the measuring device and the computer device (global positioning system 170; column 8, lines 66 and 67; figure 5) in regard to claim 40.

Claim Rejections - 35 USC § 103

4 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-7, 21-23 and 34-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoskinson in view of Densham et al. (US 5,132,871)(Hereafter referred to as Densham).

Hoskinson teaches:

A measuring device (instrumented hitch pin 100; column 8, lines 8 and 9) for selectively and directly measuring the property (density; column 2, line 46) of the paving-related material (soil; column 2, line 33) in regard to claim 1;

A computer device (computer 20; column 6, line 3) capable of executing a software program (column 5, lines 41-47) product and communicating with the measuring device (data acquisition module; column 12, line 26), the computer device being configured to direct the measuring device to measure the property of the paving-related material according to a parameter determined by the software program product, and to receive data comprising the measured property of the paving-related material from the measuring device (column 5, lines 12-37) in regard to claim 1;

A communication element operably engaged between the measuring device and the computer device (load sensor lead; column 12, line 24) so as to allow communication therebetween, the communication element being configured to allow the computer device to be spaced apart from the measuring device (column 5, lines 60-65), thereby allowing the computer device to be prepared, to include the parameter and to manipulate the data, in spaced apart relation with respect to the measuring device in regard to claim 1;

A communication element comprises a wire element extending and connected between the computer device and the measuring device (load sensor lead; column 12, line 24) in regard to claim 2;

Preparing a computer device to execute a software program product for directing a measuring device to directly measure the property of the paving-related material, according to a parameter determined by the software program product (column 6, lines 1-13), and to receive data comprising the measured property of the paving-related material from the measuring device (column 9, lines 5-9) in regard to claim 18;

Executing the software program product (column 5, lines 44-53) in regard to claim 18;

Communicating the executed software program product from the computer device to the measuring device via a communication element operably engaged therebetween (WAN; column 6, lines 60-63; figure 1, element 52), the communication element being configured to allow the computer device to be spaced apart from the measuring device such that the computer device can be prepared, in spaced apart relation with respect to the measuring device, to include the parameter and to manipulate the data in regard to claim 18;

A computer device (computer 20; column 6, line 3) capable of executing a software program product (column 5, lines 41-47) and communicating with the measuring device, the computer device being configured to direct the measuring device to measure the property of the paving-related material according to a parameter determined by the software program product, and to receive data comprising the measured property of the paving-related material from the measuring device (column 5, lines 12-37) in regard to claim 32;

A communication element operably engaged between the measuring device and the computer device (load sensor lead; column 12, line 24) so as to allow communication therebetween, the communication element being configured to allow the computer device to be spaced apart from the measuring device (column 5, lines 60-65), thereby allowing the computer device to be prepared, to include the parameter and to manipulate the data, in spaced apart relation with respect to the measuring device in regard to claim 32;

And a communication element comprises a wire element (load sensor lead; column 12, line 24) extending and connected between the computer device and the measuring device in regard to claim 33.

Hoskinson does not fully teach:

A wire element further configured to be removably engaged with at least one of the computer device and the measuring device in regard to claims 3 and 34;

A communication element further comprises a connector having a first portion configured to be removably engaged with a second portion in regard to claims 4 and 35;

A first portion is engaged with the computer device and the second portion is engaged with the measuring device in regard to claims 5 and 36;

A first portion is engaged with the computer device and the second portion is engaged with a wire element extending and connected to the measuring device in regard to claims 6 and 37;

A first portion is engaged with the measuring device and the second portion is engaged with a wire element extending and connected to the computer device in regard to claims 7 and 38;

A communication element comprises a connector having a first portion engaged with the computer device and a second portion engaged with the measuring device, and the method further comprises removably engaging the first portion with the second portion in regard to claim 21;

A communication element comprises a connector having a first portion engaged with the computer device and a second portion engaged with a wire element extending and connected to the measuring device, and the method further comprises removably engaging the first portion with the second portion in regard to claim 22;

And a communication element comprises a connector having a first portion engaged with the measuring device and a second portion engaged with a wire element extending and connected to the computer device, and the method further comprises removably engaging the first portion with the second portion in regard to claim 23.

Densham teaches:

A wire element (smart connector and cable; column 3, line 59) further configured to be removably engaged with at least one of the computer device and the measuring device (figure 2) in regard to claims 3 and 34;

A communication element further comprises a connector having a first portion configured to be removably engaged with a second portion (figure 5) in regard to claims 4 and 35;

A first portion is engaged with the computer device and the second portion is engaged with the measuring device (figure 5) in regard to claims 5 and 36;

A first portion is engaged with the computer device and the second portion is engaged with a wire element extending and connected to the measuring device (figure 5) in regard to claims 6 and 37;

A first portion is engaged with the measuring device and the second portion is engaged with a wire element extending and connected to the computer device (figure 5) in regard to claims 7 and 38.

A communication element comprises a connector having a first portion engaged with the computer device and a second portion engaged with the measuring device, and the method further comprises removably engaging the first portion with the second portion (figure 5) in regard to claim 21;

A communication element comprises a connector having a first portion engaged with the computer device and a second portion engaged with a wire element extending and connected to the measuring device, and the method further comprises removably engaging the first portion with the second portion (figure 5) in regard to claim 22;

And a communication element comprises a connector having a first portion engaged with the measuring device and a second portion engaged with a wire element extending and connected to the computer device, and the method further comprises removably engaging the first portion with the second portion (figure 5) in regard to claim 23.

Regarding claims 3-7, 21-23 and 34-38, it would have been obvious to one skilled in the art at the time of the instant invention to modify the teaching of Hoskinson communicating with a measuring device with the teaching of Densham of a smart connector and cable because the cable would have provided a communication link between a portable computer and a peripherial unit (measuring device).

Claims 17, 31 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoskinson in view of Sinisi (US 2004/0128613)(Hereafter referred to as Sinisi).

Hoskinson teaches:

A measuring device (instrumented hitch pin 100; column 8, lines 8 and 9) for selectively and directly measuring the property (density; column 2, line 46) of the paving-related material (soil; column 2, line 33) in regard to claim 1;

A computer device (computer 20; column 6, line 3) capable of executing a software program (column 5, lines 41-47) product and communicating with the measuring device (data acquisition module; column 12, line 26), the computer device being configured to direct the measuring device to measure the property of the paving-related material according to a parameter determined by the software program product, and to receive data comprising the measured property of the paving-related material from the measuring device (column 5, lines 12-37) in regard to claim 1;

A communication element operably engaged between the measuring device and the computer device (load sensor lead; column 12, line 24) so as to allow communication therebetween, the communication element being configured to allow the computer device to be spaced apart from the measuring device (column 5, lines 60-65); thereby allowing the computer device to be prepared, to include the parameter and to manipulate the data, in spaced apart relation with respect to the measuring device in regard to claim 1;

Preparing a computer device to execute a software program product for directing a measuring device to directly measure the property of the paving-related material, according to a parameter determined by the software program product (column 6, lines 1-13), and to receive data comprising the measured property of the paving-related material from the measuring device (column 9, lines 5-9) in regard to claim 18;

Executing the software program product (column 5, lines 44-53) in regard to claim 18;

Communicating the executed software program product from the computer device to the measuring device via a communication element operably engaged therebetween (WAN; column 6, lines 60-63; figure 1, element 52), the communication element being configured to allow the computer device to be spaced apart from the measuring device such that the computer device can be prepared, in spaced apart relation with respect to the measuring device, to include the parameter and to manipulate the data in regard to claim 18;

A computer device (computer 20; column 6, line 3) capable of executing a software program product (column 5, lines 41-47) and communicating with the measuring device, the computer device being configured to direct the measuring device to measure the property of the paving-related material according to a parameter determined by the software program product, and to receive data comprising the measured property of the paving-related material from the measuring device (column 5, lines 12-37) in regard to claim 32;

And a communication element operably engaged between the measuring device and the computer device (load sensor lead; column 12, line 24) so as to allow communication therebetween, the communication element being configured to allow the computer device to be spaced apart from the measuring device (column 5, lines 60-65), thereby allowing the computer device to be prepared, to include the parameter and to manipulate the data, in spaced apart relation with respect to the measuring device in regard to claim 32.

Hoskinson does not fully teach:

A computer device is further configured to associate a time and date stamp with the data when the property is measured in regard to claims 17, 31 and 42.

Sinisi teaches time date stamp entry can be obtained with GPS or GIS (¶ 0064).

Regarding claims 17, 31 and 42, it would have been obvious to one skilled in the art at the time of the instant invention to modify the teaching of Hoskinson of a computer device capable of executing a software program product and communicating with a measuring device with the teaching of Sinisi of a time date stamp entry can be obtained with GPS or GIS because permanent records may be generated from collected data and synchronized to manipulate data in records for later use such as optimization of a data collection template, production of reports from collected data and storage of collected data (see ¶ 0010).

Allowable Subject Matter

Claims 12, 13, 16, 27, 30 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

Claim 12 recites, in part, "the measuring device is configured to be capable of performing a plurality of functions and the software program product is configured to be capable of directing the measuring device to perform a combination of functions selected from the plurality of functions". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claim 13 recites, in part, "at least one function in the plurality of functions is configured to determine the parameter used to measure the property of the material". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claim 16 recites, in part, "the computer device is further configured to direct the data to a third party computer device without allowing the data to be modified". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claim 27 recites, in part, "the measuring device is configured to be capable of performing a plurality of functions and preparing the computer device to execute the software; program product further comprises preparing the computer device to execute the software program product, the software program product being capable of directing the measuring device to perform a combination of functions selected from the plurality of functions and at least one function in the plurality of functions being configured to determine the parameter used to measure the property of the material". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claim 30 recites, in part, "directing the data from the computer device to a third party computer device without allowing the data to be modified". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claim 41 recites, in part, "the computer device is further configured to direct the data to a third party computer device without allowing the data to be modified". This feature in combination with the remaining claimed structure avoids the prior art of record.

It is these limitations, which are not found, taught or suggested in the prior art of record, and are recited in the claimed combination that makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas N. Washburn whose telephone number is (571) 272-2284. The examiner can normally be reached on Monday through Thursday 6:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DNW

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